

'SAY ON PAY' REGULATION AND CHIEF EXECUTIVE OFFICER PAY: EVIDENCE FROM AUSTRALIA

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Abstract

We investigate the consequences of Australia's 'say on pay' regulation on the chief executive officer (CEO) compensation using recent data. We find that, for the 'first-strike' firms that avoided a 'second strike' (the treatment firms), a reduction in CEO total remuneration is positively associated with a lower level of shareholder dissent votes on the following remuneration report. We also find that, unlike control firms, the treatment firms increased the proportion of CEO's performance-based pay in the year following the 'first strike' and such an increase is negatively related to a change in shareholders' dissent level. Further, detailed descriptive analysis suggests that the 'first-strike' firms made relatively more frequent and larger pay reductions by reducing the level of pay in one or more components of the CEO pay.

Keywords: 'Say on Pay', CEO Pay; 'Two-strikes' Rule, Performance-based Pay, Shareholder Dissent

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1 Introduction

Over the past two decades, executive remuneration has been a topic of considerable controversy (Jensen and Murphy, 2004). Arguably, perceived inability of board of directors to set optimal executive pay, together with the revelation of corporate scandals and subsequent collapse of high-profile companies, triggered regulatory reform and fuelled an intense public debate about executive pay (Chalmers et al., 2006; Guest, 2010; Cianci et al., 2011). With a view to improving the accountability of executive pay, Australia introduced the *Corporations Amendment (Improving Accountability on Director and Executive Remuneration) Act 2011 (the Remuneration Amendment Act, hereafter)* with effect from 1 July 2011. Unlike the previous non-binding shareholder voting on the remuneration report, this new 'say on pay' legislation, widely known as the 'two-strikes' rule in Australia, has specific and predictable consequences (Monem and Ng, 2013). Under this Act, the board of directors (except the CEO) of a firm listed on the Australian Securities Exchange (ASX) may potentially face re-election if the remuneration report receives 25% or more 'no' votes at the annual general meeting (AGM) in two consecutive years.

There is an emerging body of literature that addresses the question of how effective 'say on pay'

regulation around the world has been to alter the pay setting process in aligning executive and shareholder interests (e.g., Conyon and Sadler, 2010; Armstrong et al., 2013; Ferri and Maber, 2013). However, this scant literature is mainly related to legislation in the U.K and the U.S where shareholder voting on executive pay is non-binding. Monem and Ng (2013) are the first to investigate the consequences of Australia's 'two strikes' rule. In this paper, we extend their work and contribute to the 'say on pay' literature by investigating the impact of shareholders' dissent votes on the level and structure of CEO remuneration. Given the controversy surrounding the 'two-strikes' rule (Monem and Ng, 2013), this line of inquiry is timely and of interest to shareholders, executives, corporate boards, regulators, shareholder activists and proxy advisors. We focus on CEO pay because it appears to be the centre of attention in media coverage of executive pay⁶ and it is likely to capture the essence of compensation structure of a firm (Monem and Ng, 2013).

We consider CEO pay at four levels: CEO's base pay, bonus pay, performance-based long-term incentives pay, and total annual remuneration. Particularly, we investigate what changes do the 'first-

⁶ On 2 March 2015, a Google search on CEO pay produced 48.6 million results.

strike' firms that avoid a 'second strike'⁷ (the treatment firms)⁸ make in the year following the 'first strike'. Specifically, we analysed a sample of 65 firms that received a 'first strike' in 2011 but avoided the 'second strike' in 2012. We analysed another 52 firms that received a 'first strike' in 2012 but avoided the 'second strike' in 2013. To enhance the validity of our results, we adopted a "difference-in-difference" approach in our design and matched each treatment firm with a control firm. Consistent with Monem and Ng (2013), we matched the treatment firms with the control firms that were very similar in terms of firm and industry economic environments. We followed their three-way matching strategy. We matched our control firms first on GICS-based industry group membership,⁹ second on operating revenue, and third on fiscal year-end.

We find that, in the sample of 'first-strike' firms that avoided the 'second strike', changes in CEO total remuneration following the 'first strike' are positively and significantly associated with the changes in the level of shareholder dissent votes. In contrast, we find no such relationship in the control sample. We also find that, unlike control firms, 'first-strike' firms that avoided a 'second strike' increase the proportion of CEO's performance-based pay in the year following the 'first strike' and such an increase is negatively and significantly related to changes in shareholders' dissent level. Further, detailed descriptive analysis suggests that the 'first-strike' firms made relatively more frequent and larger pay reductions by reducing the level of pay in one or more components of the CEO pay. For a smaller number of treatment firms, an increase in base pay was offset by a larger decrease in bonus pay or long-term (equity) incentives pay. These patterns of pay changes in the treatment group were very much in contrast with those in the matched control group and the firms that could not avoid the 'second strike'. These results suggest that empowering shareholders by giving them a 'say on pay' has the potential of curbing excessive executive pay and improving the alignment between shareholders' and managers' incentives.

This study makes three contributions to the executive compensation literature. First, we contribute to the emerging literature on 'say on pay'. Unlike the 'say on pay' studies in the U.K. and the U.S. settings (e.g., Conyon and Sadler, 2010; Armstrong et al., 2013; Ferri and Maber, 2013) where shareholder votes are not mandatory, using the Australian setting we provide evidence of whether mandatory shareholder

votes can curb excessive executive pay. Second, unlike Monem and Ng (2013) who document the effect of the 'two strikes' rule on the pay-performance link, we document the impact of that rule on the level and structure of CEO compensation. Third, our study provides insights for regulators in other countries who are contemplating some form of 'say on pay' regulation.

The remainder of the paper proceeds as follows. Section 2 discusses the regulatory setting for this paper. Section 3 develops the hypotheses. Research models and sample selection are discussed in Section 4. Section 5 discusses the empirical results. Section 6 provides additional analysis. Section 7 presents the summary and conclusions of the paper.

2 Regulatory setting

Executive remuneration¹⁰ has attracted a great deal of interest and debates from shareholders, policymakers, media, business groups and the wider community (Productivity Commission Inquiry Report, 2009). Global concerns over excessive pay and rewards for failure has created the demand for greater accountability from executives, improved transparency, and increased shareholders rights. In 2002, the UK was the first country to mandate an annual non-binding shareholder vote on executive pay (Ferri and Maber, 2013). This non-binding nature of the vote does not mandate firms to respond to shareholder concerns about executive pay even if there is a majority 'no' votes against it (Monem and Ng, 2013). Unlike the Anglo-Saxon model of a non-binding 'say on pay', binding shareholder votes have been required by several European countries (such as Norway, the Netherlands, and Sweden) (Conyon and Sadler, 2010; Göx, 2012). Recently, the global financial crisis (GFC) and its consequences led more countries taking some action on executive remuneration (e.g., the Dodd-Frank Act of 2011 in the U.S.; Swiss referendum on curbing executive and directors pay in 2013).

Australia also shares the global concerns over executive pay (Monem and Ng, 2013). The *Corporate Law Economic Reform Program (Audit reform & Corporate Disclosure) Act 2004 (CLERP 9)*, which came to effect on 1 July 2004, introduced a non-binding shareholder vote on remuneration report for the first time in Australia. According to this legislation, shareholder vote on the remuneration report was advisory vote only and CLERP 9 did not require a board of directors to respond to shareholder concerns even if there was a majority 'no' votes. Consequently, in response to community concerns over excessive pay practices, then the Rudd

⁷ A 'second strike' occurs when a 'first-strike' firm of the previous year receives 25% or more 'no' votes again on the remuneration report this year.

⁸ For ease of exposition, we frequently label the treatment firms as the 'first-strike' or 'strike' firms as well.

⁹ The Global Industry Classification Standard (GICS) has been jointly developed by Standard and Poor's and Morgan Stanley Capital International. Sector is the first level of industry classification in the GICS, which comprises 10 economic sectors, 23 industry groupings, 59 industries, and 122 sub-industries.

¹⁰ According to the Productivity Commission Inquiry Report (2009: 8), executive remuneration may be made up of the following: (i) base pay/salary; (ii) short-term incentives; (iii) long-term incentives; (iv) non-recourse loans; and (v) termination payments.

Government requested the Productivity Commission to undertake an inquiry into the existing regulatory framework around remuneration of directors and executives in March 2009. The Commission found that remuneration structures in Australia are “company and context-specific” and a matter for boards to resolve rather than being agreeable to prescriptive direction (Productivity Commission Inquiry Report, 2009, p. XLII, p.382). However, the Commission provided 17 recommendations. The election of directors, voting rights, remuneration committees, remuneration reports and disclosure, and the adoption of the ‘two-strikes’ rule to involve shareholders in executive remuneration have been addressed by these recommendations (Monem and Ng, 2013). The Rudd Government responded to the Productivity Commission’s report officially in April 2010. The Remuneration Amendment Bill was released for public consultation by the Federal Treasurer in December 2010. The Senate approved the Bill in June 2011, and the new legislation took effect from 1 July 2011.

The introduction of the ‘two-strikes’ rule is the key feature of the *Remuneration Amendment Act* (Monem and Ng, 2013) which has specific and predictable consequences if the board of directors does not respond to shareholder dissatisfaction (‘no’ votes) over executive remuneration. The ‘two strikes’ rule operates as follows:

(i) The ‘first strike’ occurs when shareholders exercise 25% or more ‘no’ votes to company’s remuneration report at the AGM. The board must address shareholder concerns about the previous remuneration report by restructuring or justifying the remuneration package in the subsequent remuneration report (Section 249L (2), *the Remuneration Amendment Act*).

(ii) The ‘second strike’ occurs when a company’s subsequent remuneration report also receives ‘no’ votes of 25% or more. After the ‘second strike’, a ‘spill’ resolution is put to shareholders in the same AGM to decide whether all of the directors (except the CEO) will need to stand for re-election (Section 250V, *the Remuneration Amendment Act*). If the ‘spill’ resolution is approved by 50% or more of eligible votes cast, the directors who approved the second remuneration report will have to stand for re-election at the ‘spill’ meeting. The ‘spill’ meeting should be held within 90 days of the ‘spill’ resolution. If at the ‘spill’ meeting, shareholders vote on removing all of the directors (except the CEO), it is possible to keep a minimum of three directors on the board (Section 250X, *the Remuneration Amendment Act*). If the ‘spill’ meeting is not held within 90 days of the ‘spill’ resolution, each person who is a director of the company at the close of those 90 days commits an offense of strict liability (Section 250W, *the Remuneration Amendment Act*). For a detailed discussion of the ‘two-strikes’ rule and its process, we refer the reader to Monem and Ng (2013).

After the ASX corporate governance principles in 2003, the ‘two strikes’ rule is arguably the most important corporate governance reform that corporate Australia has seen (Monem and Ng, 2013). However, there are debates about unforeseen and unintended consequences of this reform. The CEO of the Australian Institute of Company Directors (AICD), Mr John Colvin, claimed that this reform created instability in the corporate boardroom and each spill damages the company’s value because it interferes with how boards manage their affairs (Alembakis, 2011). This study provides some evidence of the consequences of the ‘two-strikes’ rule on CEO remuneration.

3 Hypotheses

3.1 The level of CEO remuneration following the ‘first strike’

According to the *Remunerations Amendment Act*, the remuneration report following the ‘first strike’ should include a section indicating how shareholders’ concerns over the previous remuneration report have been addressed (Section 249(L)2). Prior research documents that firms with higher CEO pay attract higher shareholder dissent (Conyon and Sadler, 2010). Moreover, boards respond to shareholders’ concerns over CEO pay by reducing CEO pay in the following year after a high level of shareholder dissent (Clarkson et al., 2011; Martin and Thomas, 2005). Thus, if a ‘first-strike’ firm avoids a ‘second strike’, it can be inferred that the board has responded to shareholders’ concerns over the remuneration report effectively and a decline in CEO pay following the ‘first strike’ should be positively associated with a decline in shareholder dissent level. It is a reasonable inference because shareholders’ dissent votes in the first place may have been triggered by a weak pay-performance link due to excessive pay relative to firm performance, especially excessive CEO pay (Monem and Ng, 2013).

Thus, we hypothesise the following:

H1: The ‘first-strike’ firms reduce their CEO total remuneration following the ‘first strike’ and such a reduction in remuneration is positively related to the change in shareholders’ dissent level.

3.2 CEO performance-based pay and the ‘first strike’

Jensen and Murphy (1990) argue that the real problem with CEO compensation is *how* CEOs are paid. There is empirical evidence supporting this argument. Analysing a sample of UK firms, Ferri and Maber (2013) show that shareholders effectively vote against rewards for failure (controversial CEO pay practices) rather than unsystematically penalizing all CEOs. Clarkson et al. (2011) argue that shareholder dissatisfaction with one or more components of the remuneration package might be reflected in a high

level of shareholder dissent. Monem and Ng (2013) document that the ‘first strike’ firms of 2011 that avoided the ‘second strike’ in 2012 improved their pay-performance link relative to a set of control firms.

Firms can improve pay-performance link either by making changes in the pay level, by changing pay composition and/or improving firm performance. Because it is always difficult to know how much performance improvement is required to avoid a ‘second strike’, ‘first-strike’ firms are more likely to signal to shareholders that managers are largely paid for performance by increasing the performance-based component of pay. Performance-based pay is unlikely to reward managers for failure, and thus, increasing the performance-based pay is likely to appease shareholder dissents. Hence, we hypothesize the following:

H2: The ‘first-strike’ firms increase the proportion of performance-based remuneration for the CEOs following the ‘first strike’, and such an increase is negatively related to the change in shareholders’ dissent level.

4 Research design

4.1 Models

To minimise the effect of confounding factors on our results, we adopt a “difference-in-difference” approach in testing our hypotheses. Specifically, we regress the change in shareholder dissent votes (dissent votes at year t – dissent votes at year $t-1$) on our hypothesised variables and several control variables which are also measured as “change” rather than “level”. Thus, our empirical models are as follows:

$$DISSENTCH_{i,t} = \alpha + \beta_1 CEOTREMUCHF_{i,t} + \beta_2 PBASEDREMUCH_{i,t} + \beta_3 SHAREPERFCH_{i,t} + \beta_4 CEOCHAIRMANCH_{i,t} + \beta_5 BOARDINDEPCH_{i,t} + \beta_6 OWNCONCCH_{i,t} + \beta_7 INSTOWNCH_{i,t} + \text{Industry-fixed effects} + \text{Year-fixed effects} + \varepsilon_{i,t} \quad (1)$$

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All variables in models (1) and (2) are as defined in Table 1. In model (1), our variables of interest are *CEOTREMUCHF* and *PBASEDREMUCH*. To be consistent with H1 and H2, we expect $\beta_1 > 0$ and $\beta_2 < 0$ and the coefficients need to be statistically significant. The specification of model (1) requires that we estimate the model for ‘first-strike’ and control firms separately. In model (2), our variables of interest are *FIRSTSTRIKE*CEOTREMUCHF* and *FIRSTSTRIKE*PBASEDREMUCH*. To be consistent with H1 and H2, we expect that $\beta_9 > 0$ and $\beta_{10} < 0$ and that the coefficients are statistically significant. We estimate model (2) on the pooled sample (i.e., the treatment and the control groups combined).

In models (1) and (2), we control for changes in shareholders’ return because shareholders disgruntled due to poor stock return over the fiscal year may exercise dissent votes on the remuneration report. Further, we control for governance structure in the firm because good governance can mitigate agency costs and thereby discipline the pay-setting process (Core et al., 1999; Clarkson et al., 2011). We use two variables: change in CEO duality (*CEOCHAIRMANCH*) and change in board independence (*BOARDINDEPCH*). We control for a

change in CEO duality because CEO duality potentially reflects CEO’s bargaining power (Monem, 2013) and the consequent influence of the CEO in setting his/her pay. Thus, shareholders may vote against the remuneration report on the belief that the presence of CEO duality increases the propensity of excessive CEO pay. We control for change in board independence because independent directors play a management monitoring role (Core et al., 1999), and can constrain excessive CEO pay by constraining CEO’s bargaining power (Hermalin and Weisbach, 1998). We include a change in ownership concentration (*OWNCONCCH*) as a control variable because high ownership concentration permits close monitoring of management (Monem, 2013). Such monitoring mechanism may allay shareholders’ concern of excessive CEO pay and thus influence shareholder voting behaviour. We also control for a change in institutional ownership (*INSTOWNCH*) because institutional shareholders play a significant role in shareholder activism (e.g., Gillian and Starks, 2006; Karpoff et al., 1996; Smith, 1996). Finally, we include industry and year fixed-effects in the models to control for differences in shareholder dissents across industries and years.

Table 1. Variable definitions

Variable Name	Label	Variable Definition
Dissent votes change	DISSENTCH	Shareholder dissent level with the remuneration report at year t less shareholder dissent level at year t-1. Consistent with Carter and Zamora (2009), Clarkson et al. (2011) and Monem and Ng (2013), we measure DISSENT as the ratio of the number of 'no' votes to the sum of total 'no' and total 'yes' votes on the remuneration report.
CEO total pay	CEOTREMU	CEO's total pay is the CEO's all-inclusive total annual remuneration including fixed salary, short-term incentives (bonus), post-employment benefits, termination benefits and long-term incentives (equity) payments.
CEO total pay change	CEOTREMUCHF	CEO total pay at year t less CEO total pay at t-1 scaled by CEO total pay at year t-1.
Change in CEO's performance-based pay	PBASEDREMUCH	The proportion of the CEO's performance-based remuneration at year t less the proportion of the CEO's performance-based remuneration at t-1. The proportion of the performance-based remuneration is calculated as the sum of all short-term incentives (including cash bonus) and long-term incentives (including options and shares) divided by the CEO's total remuneration.
Change in shareholders' return	SHAREPERFCH	Shareholders' annual return at year t less shareholders' annual return at t-1. Shareholders' annual return is calculated as the closing share price at the end of year t minus closing share price at the end of year t-1 plus adjusted dividend paid per share divided by closing share price at the end of year t-1.
CEO Duality	CEO Duality	A binary variable set equal to 1 if the CEO and board chair roles are held by two different persons, otherwise 0.
CEO duality change	CEOCHAIRMANCH	A binary variable set equal to 1 if CEO duality improved over the year (i.e., CEO duality scored 0 last year and 1 this year), otherwise 0.
Change in ownership concentration	OWNCONCCH	The percentage of shares owned by the top 20 shareholders at year t less the percentage of shares owned by the top 20 shareholders at t-1.
Board independence	BoardIndep	The proportion of non-executive directors in the board
Change in board independence change	BOARDINDEPCH	Board independence at year t less board independence at year t-1.
Institutional ownership change	INSTOWNCH	The percentage of institutional ownership at year t less the percentage of institutional ownership at t-1.
First strike	FIRSTSTRIKE	A binary variable set equal to 1 for 'first-strike' firms that avoided a 'second strike' and zero for matched control firms.
Market Capitalisation	MAKTCAP	MKTCAP is the total market capitalization at the end of the fiscal year.
Total Asset	TASSET	Total assets are the book value of total assets at year-end.

4.2 Data

The list of 'first-strike' firms came from Fairfax Business Research (FBR) which is the research arm of Fairfax Business Media, Australia. FBR collected shareholder voting data from first-hand sources such as company secretaries and AGM reports. We collected remuneration data mainly from the Connect 4's Boardroom and Sirca databases. All financial data are drawn from MorningStar DatAnalysis Premium database. Corporate governance data were collected mostly from Sirca database. We hand-collected any missing remuneration and corporate governance data

from company annual reports available from the Connect 4 and MorningStar DatAnalysis Premium databases. We collected voting results on the remuneration reports for control firms from MorningStar database.

Table 2 presents the sample selection process. In 2011, a total of 111 firms received the 'first strike', but seven of these firms were excluded from the sample due to various reasons¹¹ following Monem and

¹¹ These seven firms comprised two firms with zero remuneration for the CEOs, two firms that had data inconsistency, one firm that had its AGM before 1 July 2011, one firm with negative revenue and one overseas firm.

Ng (2013). In 2012, 22 of these 104 firms received the ‘second strike’ (i.e., received a ‘strike’ both in 2011 and 2012). Another eight firms did not vote on the remuneration report in 2012 and nine firms had missing or incomplete data. After excluding all these 39 (= 22 + 8 + 9) firms, our final sample of 2011 ‘first strike’ firms that avoided a ‘second strike’ in 2012 (treatment sample) consists of 65 firms. In 2012, 105 firms received a ‘strike’. However, in this sample of 105 firms, it was already the ‘second strike’ for 22 firms. Thus, it was a ‘first strike’ in 2012 for the remaining 83 firms. In 2013, 17 of these 83 firms received the ‘second strike’. In addition, 14 firms had

missing or incomplete data. Thus, our final sample of the ‘first strike’ firms of 2012 that avoided the ‘second strike’ in 2013 is 52. In total, we have 117 (= 65 + 52) treatment firms and 117 matched-pair control firms. Because we are interested in the changes in CEO pay when firms avoid the ‘second strike’, we analyse the 2012 data for the ‘first strike’ only firms of 2011 and 2013 data for the ‘first strike’ only firms of 2012. Consistent with prior studies (e.g., Brown et al., 2014; Larcker et al., 2007; Monem and Ng, 2013), we winsorized each variable both at the top and the bottom 5% of observations.

Table 2. Sample selection

Descriptions	2012	2013
‘Firm-strike’ firms of previous year	104	105
Less: ‘two-strike’ firms of 2012	(22)	(22)
Less: ‘two-strike’ firms of 2013		(17)
Less: Previous year’s ‘first –strike’ firms that did not vote on the remuneration report in the current year	(8)	0
‘First-strike’ firms that avoided the ‘second strike’	74	66
Less: Firms with missing or incomplete data	(9)	(14)
Final sample of ‘first-strike’ firms that avoided the ‘second strike’	65	52

Our approach of matching the ‘strike’ (treatment) firms with the control firms is consistent with Monem and Ng (2013). We followed their three-way matching strategy. We matched our control firms first on GICS-based industry group membership, second on operating revenue, and third on fiscal year-end. Operating revenue was chosen instead of market capitalization or total assets to match the control firms because many treatment firms had zero or no revenues during the study period. After all, Monem and Ng (2013) argue that one of the fundamental characteristics of a healthy firm is its ability to generate operating revenue and that firms with active operations will generate operating revenue. Further, operating revenue is a key financial figure that is widely used by investors and analysts. Moreover, we matched control firms on fiscal year-end because we

expect that there be a similar timeline to hold the AGM for firms with similar fiscal year-ends. Market sentiments can influence the timing of AGMs early or late in the season and shareholders’ voting behaviour could be affected by such market sentiments (Monem and Ng, 2013).

Table 3 shows the distribution of the treatment samples (before adjusting for missing or incomplete firm-specific data) in 2012 and 2013 by GICS industry sectors. Of the 74 firms in 2012, 46% of the treatment firms came from only two sectors (Materials, 29.7%; Energy, 16.3%) and another 44.7% came from sectors comprising Industrials, Consumer Discretionary, Financials, and Health Care. Of the 66 firms in 2013, 74.4% of the ‘first-strike’ firms that avoided a ‘second strike’ came from only three sectors (Materials, 44%; Energy, 15.2%; Industrials, 15.2%).

Table 3. Industry distribution of 74 ‘First-strike’ firms that avoided the ‘second strike’ in 2012 and 66 ‘First-strike’ firms that avoided the ‘second strike’ in 2013

Industry Sector	Year: 2012 Freq. (proportion)	Year: 2013 Freq. (proportion)
Energy (10)	12 (16.3%)	10 (15.2%)
Materials (15)	22 (29.7%)	29 (44.0%)
Industrials (20)	9 (12.2%)	10 (15.2%)
Consumer Discretionary (25)	9 (12.2%)	7 (10.6%)
Consumer Staples (30)	2 (2.7%)	1 (1.5%)
Health Care (35)	6 (8.1%)	2 (3.0%)
Financials (40)	9 (12.2%)	3 (4.5%)
Information Technology (45)	4 (5.4%)	3 (4.5%)
Telecommunications (50)	1 (1.2%)	1 (1.5%)
Utilities (55)	0 (0.0%)	0 (0.0%)
Total	74 (100%)	66 (100%)

Table 4 presents key descriptive statistics for the treatment group and the control group. It also provides univariate tests of differences comparing the treatment group with the control group for assessing the effectiveness of our matching process. As can be seen in Table 4, the mean (median) dissent votes for the treatment group declined by 34.8% (32.2%) compared with a 1.0% (0.0%) rise in the mean (median) dissent votes in the control group. As expected, the means (medians) are significantly different from each other as reflected in the univariate tests (t -statistic = 20.199; z -statistic = 12.907). Although the CEO total remuneration is higher (mean = \$743,983; median = \$491,909) in the treatment group compared with that in the control group (mean = \$720,126; median = \$488,117), the differences in total remuneration between these two groups is not statistically significant (t -statistic = -0.274; z -statistic = 0.087). However, the CEO mean (median) total remuneration declined in the treatment group by 3.7% (4.8%) compared with a 3.6% (1.1%) rise in the control group.

Table 4 shows that the proportion of CEO's performance-based pay declined on average by 5.1% (median change = 0%) in the treatment group while it declined by 1.7% on average (median change = 0%) in the control group. While the ownership concentration had a mean (median) increase in the treatment group by 0.6% (0.4%), it had a mean (median) decrease by 0.8% (0.0%) in the control group. In terms of total assets, the treatment firms were slightly larger (mean = \$243.05 million; median = \$43.21 million) than the control firms (mean = \$205.83 million; median = \$56.40 million), but these differences in size are not statistically significant. On the other hand, although statistically non-significant, the treatment firms had smaller market capitalisation (mean = \$168.98 million; median = \$27.42 million) compared with that of the control firms (mean = \$175.81 million; median = \$46.13 million). When one considers total assets vis-à-vis market capitalisation, it appears that the control firms had relatively better market performance than the treatment firms. In relation to other variables, the two groups do not differ statistically. Thus, it appears that the control firms are similar to the treatment firms along several key dimensions.

5 Empirical results

Table 5 presents the results of ordinary least squares (OLS) estimates of model (1) separately on the treatment group and the control group and model (2) for the pooled sample (combining these two samples). As seen in Table 5, while the coefficient of change in CEO total remuneration is not significant for control firms (CEOTREMUCHF = 0.010, p = 0.668), a reduction in CEO total remuneration is positively and significantly associated with a decline in shareholder dissents in the year that 'first-strike' firms avoid a 'second strike' (CEOTREMUCHF = 0.096, p =

0.044). These results are consistent with H1. Further, a negative and significant coefficient on PBASEDREMUCH (= -0.213; p = 0.005) in the treatment sample suggests that an increase in the proportion of performance-based pay is associated with a decrease in shareholder dissents. In contrast, the coefficient of PBASEDREMUCH in the control sample is not significant (PBASEDREMUCH = 0.028; p = 0.572). The significant results in the treatment sample and non-significant results in the control sample are consistent with the prediction in H2.

Among the control variables, we find that the 'first-strike' firms that separated the board chair and the CEO roles after the 'first strike' experienced a decline in shareholder dissent (CEOCHAIRMANCH = -0.152, p = 0.004). Such contrasting results may suggest that optimal governance structure is firm-specific (Linck et al., 2008; Monem, 2013) and control firms may have very different governance demands compared with the 'first-strike' firms. This conjecture is further supported by the evidence that, unlike in the treatment group, shareholder dissent increases with the increase in board independence in the control group (BOARDINDEPCH = 0.121, p = 0.019). In the control group, shareholder dissent also increases with the increase in institutional ownership (INSTOWNCH = 0.273; p = 0.003). This result is consistent with the findings in the extant literature that institutional shareholders play a significant role in shareholder activism (Gillian and Starks, 2006; Karpoff et al., 1996; Smith, 1996).

In model (2), the variables of our interest are the interactions of FIRSTSTRIKE with CEOTREMUCHF and PBASEDREMUCH. In Table 5, the dummy variable FIRSTSTRIKE is negative as expected and statistically significant (coefficient = -0.354, p < 0.001). The negative coefficient of FIRSTSTRIKE suggests that shareholder dissent votes declined significantly in the treatment group compared with the control group. These are the firms that avoided the 'second strike'. We note that, mainly driven by the variable FIRSTSTRIKE, the adjusted R^2 improves significantly to 66.1% in model (2) from those reported for model (1), (5.1% for treatment group and 17.2% for the control group). In Table 5, among the interaction variables, although changes in the CEO total remuneration (CEOTREMUCHF) in the treatment firms do not have any significant incremental effect in reducing shareholder dissent, an increase in the proportion of performance-based pay in the treatment group reduces shareholder dissent (FIRSTSTRIKE*PBASEDREMUCH = -0.256, p = 0.004). Thus, in model (2), although H1 is not supported, H2 is supported. In sum, the results in Table 5 provide some evidence of changes in the level and composition of CEO pay that were associated with the 'first-strike' firms avoiding a 'second strike'.

Table 4. Descriptive statistics and univariate tests

Variable	Treatment group			Control group			Treatment vs. Control group			
	N = 117			N = 117			Mean (t-test)		Median (Wilcoxon)	
	Mean	Std. Dev.	Median	Mean	Std. Dev.	Median	Difference	t-statistic	Difference	z-statistic
Dissent votes change	-0.348	0.17	-0.322	0.001	0.08	0	-0.349	20.199***	-0.323	12.907***
CEO total remuneration (\$A)	743983	700560	491909	720126	628700	488117	23858	-0.274	3792	0.087
CEO total remuneration change	-0.037	0.35	-0.048	0.036	0.44	0.011	-0.073	1.417	-0.059	1.4
Performance-based pay change	-0.051	0.19	0	-0.017	0.21	0	-0.034	1.278	0	0.887
Change in Shareholders' return	-0.066	0.62	-0.001	-0.054	0.6	-0.015	-0.012	0.149	0.014	-0.984
CEO duality change	0.034	0.18	0	0.009	0.09	0	0.026	1.356	0	1.353
Board independence change	0.014	0.14	0	-0.004	0.16	0	0.018	-0.684	0	-1.316
% Ownership Concentration change	0.006	0.06	0.004	-0.008	0.06	0	0.014	-1.948*	0.004	-1.37
% Institutional Ownership change	0.233	19.22	0.3	-0.007	0.08	-0.006	0.24	-0.135	0.306	-0.857
Total Assets (\$A million)	243.05	380.14	43.21	205.83	352.3	56.40	37.22	-0.777	-13.19	0.254
Market Capitalisation (\$A million)	168.98	281.08	27.42	175.81	307	46.13	-6.82	0.180	-18.72	1.17

Table 5. Ordinary least squares regression results of estimating model (1) separately on the ‘first-strike’ firms that avoided the ‘second strike’ and the control sample and model (2) on the pooled sample

Variable	‘First- strike’ firms	Control firms	Pooled ‘first-strike’ & control firms
	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
Intercept	-0.341*** (0.000)	0.030 (0.130)	0.020 (0.431)
CEOTREMUCHF	0.096** (0.044)	0.010 (0.668)	0.020 (0.450)
PBASEDREMUCH	-0.213*** (0.005)	0.028 (0.572)	0.041 (0.442)
SHAREPERFCH	-0.023 (0.331)	-0.023* (0.083)	-0.023 (0.105)
CEOCHAIRMANCH	-0.152*** (0.004)	0.035** (0.018)	-0.110** (0.030)
BOARDINDEPCH	0.009 (0.934)	0.121** (0.019)	0.040 (0.494)
OWNCONCCH	-0.408 (0.138)	-0.060 (0.648)	-0.260* (0.081)
INSTOWNCH	-0.000 (0.566)	0.273*** (0.003)	-0.000 (0.553)
FIRSTSTRIKE			-0.354*** (0.000)
FIRSTSTRIKE*CEOTREMUCHF			0.076 (0.131)
FIRSTSTRIKE*PBASEDREMUCH			-0.256*** (0.004)
Industry-fixed effects	Included	Included	Included
Year-fixed effects	Included	Included	Included
N	117	117	234
Adj. R ²	0.051	0.172	0.661

Note: *, **, and ***denote significance at the 0.10, 0.05, and 0.01 levels, respectively. See Table 1 for variable definitions

6 Further analysis

In this section, we provide additional descriptive evidence of the changes in CEO total pay, base pay, bonus pay and long-term incentives pay. We conduct this analysis both for the treatment and the control samples. We also examine CEO pay changes in the 'second-strike' firms to understand whether CEO pay changes were significantly different between the treatment firms and the 'second-strike' firms.

Table 6 shows the distribution of 'first-strike' and control firms in terms of pay changes ranging from pay reduction > \$500,000 to pay increase > \$500,000. As can be seen in Table 6 panel A, 67 (54%) out of 123 firms¹² reduced CEO total pay. In contrast, only 52 (43.9%) control firms reduced CEO total pay in the year following the 'first strike'. Panel A also reveals that 51 firms (41.5%) 'strike' firms increased CEO total pay compared with 64 control firms (52%) taking such a measure. Clearly a greater proportion of the 'first-strike' firms reduced CEO total pay.

Panel B, Table 6, reveals that 50 (40.7%) 'first-strike' firms reduced their CEOs' base pay compared with 41 (33.3%) control firms taking similar action. Interestingly, only three 'first-strike' firms increased CEOs' base pay by more than \$250,000 compared with eight control firms taking such a measure. Moreover, two control firms increased CEOs' base pay by more than \$500,000, but none of the 'first-strike' firms made such an increase in base pay. In Panel C, we report the distribution of changes in CEOs' bonus pay. Again, panel C presents a pattern that is observed in panels A and B. Specifically, 39 (31.7%) of the 123 'first-strike' firms reduced bonus pay to some extent. By comparison, 30 (24.4%) of the control firms took such a measure.

In Table 6, a contrasting image appears in case of bonus pay increases. Twenty-two (17.9%) 'first-strike' firms and 33 (26.8%) control firms increased bonus pay. Furthermore, while a much higher proportion of the 'first-strike' firms (28 'first-strike' firms versus 21 control firms) reduced bonus by up to \$250,000, a much higher proportion control firms (31 control firms versus 17 'first-strike' firms) increased bonus pay by up to \$250,000. Panel D, Table 6, shows the distribution of changes in long-term incentives (shares and options granted). As panel D reveals, 15 of the 'first-strike' firms compared with eight of the control firms reduced long-term incentives pay by \$250,000 or more. However, a similar proportion of both 'first strike' and control firms (35 'first-strike' firms and 39 control firms) reduced LTI pay to some extent. Again, a similar proportion of 'first-strike' and control firms (39 'first-strike' firms compared with 40 control firms) increased long-term incentives pay for CEOs. In sum, total pay reductions in 'first-strike' firms mainly came from reductions in base pay followed by

reductions in bonus pay. In unreported results, we find a similar pattern when we scale CEO pay changes by total assets.

A closer examination of CEO pay changes data (results not tabulated) reveals that, of the 67 'first-strike' firms (out of 123) that reduced CEO total pay, 38 firms reduced CEO base pay, 31 firms reduced bonus pay and 29 firms reduced CEO long-term incentives pay. Among these 67 firms, 23 firms indeed increased the CEOs' base pay, but such pay increases were offset by larger decreases in bonus and long-term incentives pay in case of 19 firms. Of the 51 'first-strike' firms (out of 123) that increased CEO total pay, in fact 12 firms reduced CEOs base pay and another 14 firms reduced CEOs' bonus and/or long-term incentives pay. Of the 54 control firms (out of 123) that reduced CEO total pay, 25 firms increased CEOs' base pay. Among these 25 control firms, 23 firms reduced either bonus pay or long-term incentives pay or both. Thus, the 'two strikes' rule may have had an effect on control firms as well in restraining CEO pay because, in theory, any firm was a potential candidate to receive a 'first strike'. Of the 64 control firms (out of 123) that increased CEO total pay, 48 firms increased CEOs' base pay. Of these 48 firms, 14 firms increased both CEO bonus pay, and long-term incentives pay at the same time. In contrast, in the group of these 48 firms, nine firms decreased either bonus pay or long-term incentives pay. Thus, compared with the control firms, the 'first-strike' firms that avoided the 'second strike' had been making more frequent and larger amounts of downward adjustments in total pay as well as changing pay composition.

In Table 7, we report further analysis in CEO pay changes for the 'second-strike' firms to understand whether pay changes made by the 'first-strike' firms were any different from those of the 'second-strike' firms. After all, the 'first-strike' that avoided the 'second strike' and the 'second-strike' firms both received the 'first strike' in the same fiscal year. As Table 7 reveals, 12 of the 39 (30.7%) 'second-strike' firms reduced CEO total pay. Specifically, 11 of the 39 firms reduced CEO base pay, six reduced bonus pay and 13 reduced long-term incentives pay. Interestingly, nine of the 'second-strike' firms reduced base pay or bonus pay by more \$250,000. In contrast, 26 of the 39 (67%) 'second-strike' firms *increased* total CEO pay, 23 increased base pay, eight increased bonus pay and 10 increased long-term incentives pay. Clearly, this pattern is in sharp contrast with that reported in panels A and B of Table 6. It is likely that the 'second-strike' firms that did reduce CEO pay in the year of the 'second strike' may not have done enough to address shareholders' concerns about CEO pay. In unreported analysis, when we scale CEO pay changes by total assets for the 'second-strike' firms, our findings remain similar.

¹² We have a slightly larger sample for this analysis because we focus only on one variable, i.e., CEO pay changes.

Table 6. Changes in CEO pay – ‘First-strike’ firms that avoided the ‘second strike’ & matched control firms

Range	Panel A: change in CEO total pay (\$)				Panel B: change in CEO base pay (\$)			
	Strike firms		Control firms		Strike firms		Control firms	
	Number of firms	% of firms	Number of firms	% of firms	Number of firms	% of firms	Number of firms	% of firms
Pay reduction > \$500,000	16	13.01%	13	10.57%	1	0.81%	1	0.81%
Pay reduction ranged between \$250,000 & \$500,000	10	8.13%	13	10.57%	5	4.07%	4	3.25%
Pay reduction ranged between \$1 & \$250,000	41	33.33%	28	22.76%	44	35.77%	36	29.27%
No change in pay	5	4.07%	5	4.07%	10	8.13%	8	6.50%
Pay increase ranged between \$1 & \$250,000	35	28.46%	50	40.65%	60	48.78%	66	53.66%
Pay increase ranged between \$250,000 & \$500,000	9	7.32%	7	5.69%	3	2.44%	6	4.88%
Pay increase > \$500,000	7	5.69%	7	5.69%	-	-	2	1.63%
Total	123	100.00%	123	100.00%	123	100.00%	123	100.00%

Range	Panel C: change in CEO bonus pay (\$)				Panel D: change in CEO LTI pay (\$)			
	Strike firms		Control firms		Strike firms		Control firms	
	Number of firms	% of firms	Number of firms	% of firms	Number of firms	% of firms	Number of firms	% of firms
Pay reduction > \$500,000	8	6.50%	4	3.25%	7	5.69%	6	4.88%
Pay reduction ranged between \$250,000 & \$500,000	3	2.44%	5	4.07%	8	6.50%	2	1.63%
Pay reduction ranged between \$1 & \$250,000	28	22.76%	21	17.07%	20	16.26%	31	25.20%
No change in pay	62	50.41%	60	48.78%	49	39.84%	44	35.77%
Pay increase ranged between \$1 & \$250,000	17	13.82%	31	25.20%	31	25.20%	27	21.95%
Pay increase ranged between \$250,000 & \$500,000	3	2.44%	1	0.81%	4	3.25%	7	5.69%
Pay increase > \$500,000	2	1.63%	1	0.81%	4	3.25%	6	4.88%
Total	123	100.00%	123	100.00%	123	100.00%	123	100.00%

Table 7. Change in CEO pay – ‘Second-strike’ firms

Range	Change in CEO total pay (\$)		Change in CEO base pay (\$)		Change in CEO bonus pay (\$)		Change in CEO LTI pay (\$)	
	Number of firms	% of firms	Number of firms	% of firms	Number of firms	% of firms	Number of firms	% of firms
Pay reduction > \$500,000	1	2.56%	-	-	-	-	1	2.56%
Pay reduction ranged between \$250,000 & \$500,000	1	2.56%	-	-	-	-	1	2.56%
Pay reduction ranged between \$1 & \$250,000	10	25.64%	11	28.21%	6	15.38%	11	28.21%
No change in pay	1	2.56%	5	12.82%	25	64.10%	16	41.03%
Pay increase ranged between \$1 & \$250,000	20	51.28%	23	58.97%	7	17.95%	8	20.51%
Pay increase ranged between \$250,000 & \$500,000	4	10.26%	-	-	1	2.56%	2	5.13%
Pay increase > \$500,000	2	5.13%	-	-	-	-	-	-
Total	39	100.00%	39	100.00%	39	100.00%	39	100.00%

7 Conclusion

In this paper, we contribute to an emerging literature on shareholders' 'say on executive pay'. We investigated the effect of Australia's controversial 'two-strikes' rule on CEO compensation. In particular, we investigate whether shareholders' dissent votes on the remuneration report has any effect on the level and structure of CEO compensation. We analysed a sample of 65 firms that received a 'first strike' in 2011 but avoided the 'second strike' in 2012. We analysed another 52 firms that received a 'first strike' in 2012 but avoided the 'second strike' in 2013. We adopted a "difference-in-difference" approach in testing our hypotheses. We also matched each 'first-strike' firm that avoided the 'second strike' (the treatment firms) with a control firm based on industry sector, operating revenue, and fiscal year-end.

We find that a change in CEO total remuneration is positively and significantly associated with a change in the shareholder dissent level in the year following the 'first strike'. We also find that, unlike control firms, 'first-strike' firms that avoided the 'second strike' increase the proportion of CEOs' performance-based pay in the year following the 'first strike' and such an increase is negatively and significantly related to a change in shareholders' dissent level. Further, detailed descriptive analysis suggests that the 'first-strike' firms made relatively more frequent and larger pay reductions by reducing the level of pay in one or more components of the CEO pay. For a smaller number of treatment firms, an increase in base pay was offset by a larger decrease in bonus pay or long-term (equity) incentives pay. These patterns of pay changes in the treatment group were very much in contrast with those in the matched control group and the firms that could not avoid the 'second strike'. These results suggest that empowering shareholders by giving them a 'say on pay' has the potential of curbing excessive executive pay and improving the alignment between shareholders' and managers' incentives.

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